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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of

Atty. Docket No.: 2639-001

Mark E. VALENTI

Appln. No.: 09/613,387

Group Art Unit: 2155

Filing Date: July 11, 2000

Examiner: Tran, Philip B.

For: **SYSTEM AND METHOD FOR INTERNET BROADCAST SEARCHING**

Mail Stop Appeal Brief - Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

RECEIVED

JAN 08 2004

Dear Sir:

Technology Center 2100

Enclosed please find the following:

1. Appellant's Brief on Appeal under 37 C.F.R. §1.192 (in triplicate);
2. One check in the amount of \$165.00

The Commissioner is hereby authorized to charge any fee deficiency, or credit any overpayment, to Deposit Account No. 18-1579. The Commissioner is also authorized to charge Deposit Account No. 18-1579 for any future fees connected in any way to this application.

Respectfully submitted,

Christopher B. Kilner

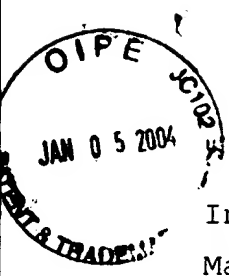
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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

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* * * * *
APPELLANT'S BRIEF ON APPEAL UNDER 37 C.F.R. § 1.192
* * * * *

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Technology Center 2100

Dear Sir:

In accordance with the provisions of 37 C.F.R. § 1.192,
Appellant submits the following:

I. REAL PARTY IN INTEREST

Based on information supplied by Appellant, and to the best
of Appellant's legal representatives' knowledge, the real party
in interest is the assignee, Interlink Network Resources, Inc.

II. RELATED APPEALS AND INTERFERENCES

Appellant, as well as Appellant's assigns and legal
representatives are unaware of any appeals or interferences which
will be directly affected by, or which will directly affect, or

have a bearing on the Board's decision in the pending appeal.

III. STATUS OF CLAIMS

Claims 1-17 are currently pending. No claims have been allowed. No claims have been canceled. Claims 1-17 are appealed. Claims 1-17, as finally rejected, are set forth in the attached Appendix.

IV. STATUS OF AMENDMENTS

No amendments have been filed herewith. The only amendments in the application, filed April 16, 2003, were entered.

V. SUMMARY OF THE INVENTION

Appellant's disclosed and claimed invention is directed to a system and method for Internet broadcast searching. Unlike the prior art Internet search techniques that involve searching an index of periodically cached content, such as done by the "Google" search engine, broadcast searching involves a real-time or "instantaneous" search of content as it resides on a plurality of website/information servers. In practice, the technique produces more timely search results and reduces network storage requirements since content is not cached.

In one embodiment (see claim 1, specification 8:5-10:2, and Fig. 2), the claimed invention is drawn to a method of instantaneously searching a network of interconnected computers

and servers comprising: a plurality of information servers connected to a network and categorizing general content stored on themselves (spec. 13:21-23, Web Servers of Fig. 2); collecting and storing the categorization and network addresses of the information servers on at least one IBSP server (spec. 14:1-2, IBSP server of Fig. 2); transmitting the categorization and network addresses of the plurality of information servers from an IBSP server to broadcast server nodes over the network (spec. 14:3-4, 5.2 of Fig. 2); accepting a query on a user node connected to the network (spec. 14:4-5, Client PCs of Fig. 2); transmitting the query from the user node directly to a broadcast server over the network (spec. 14:5-6, 6.3 of Fig. 2); the broadcast server receiving and transmitting the user node query to the plurality of information servers (spec. 14:6-10, 7.3 of Fig. 2); the information servers instantaneously searching themselves for specific content responsive to the user node query (spec. 14:10-12); and each of the plurality of information servers transmitting a response to the user node query to the user node when responsive content is found (spec. 14:13-14).

A refinement of this embodiment further comprises (claim 2) the user node categorizing each user node query prior to transmitting the user node query (spec. 14:5); and the broadcast server transmitting the user node query to a plurality of information servers that have appropriate categorization (spec. 14:6-8). Another refinement of this embodiment involves (claim 3)

the categorization and network addresses comprising information selected from the group consisting of website language, general contents, domain name, and IP address (spec. 5:23-6:7). Another refinement involves (claim 4) connecting the user node to the network via a firewall (spec. 15:15-16 and 21-22).

A second embodiment (claim 5, spec. 5:11-8:4, and Fig. 1) of the invention is to a system for instantaneously searching a network of interconnected computers and servers comprising: a plurality of information servers connected over a network, each comprising instructions for categorizing general content resident on the information servers to form a categorization (spec. 13:1-4, Web servers of Fig. 1) and for transmitting their network address and categorization to an IBSP server (spec. 13:6-8); the IBSP server connected to the network and comprising instructions for receiving the network addresses and categorization from the information servers (spec. 13:3-6) and for transmitting same to a plurality of user nodes connected to the IBSP server over the network (spec. 13:9-12); the plurality of user nodes each comprising instructions for receiving the network addresses and categorization of the information servers from the IBSP server and for accepting and categorizing user queries (spec. 13:10-12); the plurality of user nodes further comprising instructions for transmitting the user nodes' network address and the categorized queries to the plurality of information servers with the same categorization as the query (spec. 13:12-15); and the information

servers further comprising instructions for instantaneously searching themselves for specific content responsive to the categorized queries from the user nodes and returning a response to the categorized queries to the user nodes transmitting the categorized queries when content responsive to the categorized queries is found (spec. 13:15-19).

A third embodiment (claim 6, spec. 8:5-10:2, Fig. 2) of the invention involves a system for instantaneously searching a network of interconnected computers and servers comprising: a plurality of information servers connected over a network, each comprising instructions for categorizing general content resident on the information servers to form a categorization and for transmitting their network address and categorization to an IBSP server (spec. 13:21-23); the IBSP server connected to the network and comprising instructions for receiving the network addresses and categorization from the information servers and for transmitting same to a plurality of broadcast server nodes (spec. 14:1-4); a plurality of user nodes each comprising instructions for accepting and categorizing user queries (spec. 14:4-5); the plurality of user nodes further comprising instructions for transmitting the user node's network address and the categorized queries to a broadcast server over the network (spec. 14:5-6); a plurality of broadcast servers each comprising instructions for receiving the network addresses and the categorization of the information servers from the IBSP server (spec. 14:3-4); the

broadcast server further comprising instructions for receiving the user nodes' network addresses and the categorized queries from the plurality of user nodes and for transmitting same to the plurality of information servers (spec. 14:6-10); and the information servers further comprising instructions for instantaneously searching themselves for specific content responsive to the categorized queries from the user nodes and returning a response to the categorized queries to the user nodes transmitting the categorized queries when content responsive to the categorized queries is found (spec. 14:10-14).

A fourth embodiment (claim 7, spec. 10:3-12:6, Fig. 3) of the present invention is to system for instantaneously searching a network of interconnected computers and servers comprising: a plurality of information servers connected over a network, each comprising instructions for categorizing general content resident on the information servers to form a categorization and for transmitting their network address and categorization to an IBSP server (spec. 14:16-18); the IBSP server, connected to the network, comprising instructions for receiving the network addresses and categorization from the information servers and for transmitting same to a plurality of firewall server nodes (spec. 14:18-21); a plurality of user nodes comprising instructions for accepting and categorizing user queries (spec. 14:21-22); the plurality of user nodes further comprising instructions for transmitting the user node's network address and the categorized

queries to a firewall server over the network (spec. 14:22-15:2); a plurality of firewall servers each comprising instructions for receiving the network addresses and the categorization of the information servers from the IBSP server (spec. 14:18-21); the firewall servers further comprising instructions for receiving the user node's network addresses and categorized the queries from a plurality of user nodes (spec. 14:22-15:2); the firewall servers further comprising instructions for transmitting the firewall node's network address, the user node addresses, and the categorized queries to the plurality of information servers (spec. 14:22-15:2); and the information servers further comprising instructions for searching themselves for specific content responsive to the categorized queries from the user nodes and returning a response to the categorized queries to the firewall server for forwarding to the user nodes transmitting the categorized queries when content responsive to the categorized queries is found (spec. 15:3-7).

A fifth embodiment (claim 8, spec. 8:5-10:2, Fig. 2) of the invention is to a system for internet broadcast searching, comprising: a network that provides internet protocol (IP) communication (see, e.g., spec. 10:3-9); a plurality of client computers connected to said network (spec. 14:4-5); a plurality of website computers connected to said network (spec. 13:21); at least one internet broadcast search paradigm (IBSP) server connected to said network (spec. 13:23); and at least one

broadcast server connected to said network (spec. 14:3-4); wherein said plurality of client computers include client software instructions to accept and categorize a search query from a user (spec. 14:4-5), to transmit said search query, a search query category and client computer IP address directly to said at least one broadcast server (spec. 14:4-5), and to receive search query results directly from responding website computers comprised of an IP address of the responding website computer and information responsive to said query from said responding website computer (spec. 14:13-14); wherein said plurality of website computers include website software instructions to periodically perform categorization of said website's general content (spec. 13:21-22), to periodically send their IP address and categorization to said at least one IBSP server (spec. 13:22-23), to search said website's content as it currently exists when a search query is received (spec. 14:10-12), and to respond directly to a search query by sending said website's IP address and a response to said search query directly to the client computer IP address (spec. 14:13-14); wherein said at least one IBSP server includes software instructions to periodically receive IP address and a categorization from said plurality of website computers (spec. 13:22-23), to periodically create a data file of IP address and categorization for all of said plurality of website computers (spec. 14:1-2), and to periodically transmit said data file to each of said at least one broadcast server

(spec. 14:3-4); and wherein said at least one broadcast server includes software instructions to receive a data file from said at least one IBSP server (spec. 14:3-4), to receive search queries with associated search query categories and client computer IP addresses directly from said plurality of client computers (spec. 14:4-6), to match said search query categories with website categorization in said data file, and to transmit search queries and associated client IP addresses directly to IP addresses of any website computers that have a categorization matching the search query categories (spec. 14:6-10).

Furthermore, the network of the second, third, fourth and fifth embodiment (claim 9) can be selected from the group consisting of an intranet, an internet, the Internet, and combinations thereof (see spec. 1:7-8); the IP address of these same embodiments (claim 10) can be selected from the group consisting of a numerical IP address, a fully qualified domain name, and both a numerical IP address and a fully qualified domain name (see spec. 6:6-7); the at least one IBSP server of these embodiments (claim 11) is selected from the group consisting of a single IBSP server and a plurality of load-balancing IBSP servers (see spec. 5:16-19); and the at least one broadcast server of these embodiments (claim 12) can comprise a plurality of broadcast servers (see spec. 8:10).

A sixth embodiment (claim 13) of the present invention is to a method for internet broadcast searching, comprising: providing

client software to a plurality of client computers connected to a network that provides internet protocol (IP) communication so as to allow said client computers to accept and categorize a search query from a user (spec. 14:4-5), to transmit said search query, a search query category and client computer IP address directly to at least one broadcast server (spec. 14:5-6), and to receive search query results directly from responding website computers comprised of an IP address of the responding website computer and information responsive to said query from said responding website computer (spec. 14:13-14); providing website software to a plurality of said website computers connected to said network so as to allow said website computers to periodically perform categorization of said website's general content (spec. 13:21-22), to periodically send their IP address and categorization to at least one IBSP server (spec. 13:22-23), to search said website's content as it currently exists when a search query is received (spec. 14:10-12), and to respond directly to a search query by sending said website's IP address and a response to said search query directly to the client computer IP address (spec. 14:13-14); providing IBSP software to said at least one IBSP server so as to allow said at least one IBSP server to periodically receive an IP address and a categorization from said plurality of website computers (spec. 13:22-23), to periodically create a data file of IP address and categorization for all of said plurality of website computers (spec. 14:1-2), and to

periodically transmit said data file to each of said at least one broadcast server (spec. 14:3-4); and providing broadcast server software to at least one broadcast server so as to allow said at least one broadcast server to receive a data file from said at least one IBSP server (spec. 14:3-4), to receive search queries with associated search query categories and client computer IP addresses directly from said plurality of client computers (spec. 14:4-6), to match said search query categories with website categorization in said data file, and to transmit search queries and associated client IP addresses directly to IP addresses of any website computers that have categorization matching the search query categories (spec. 14:6-10).

The network of this sixth embodiment (claim 14) can be selected from the group consisting of an intranet, an internet, the Internet, and combinations thereof (see spec. 1:7-8); the IP address of this embodiment (claim 15) can be selected from the group consisting of a numerical IP address, a fully qualified domain name, and both a numerical IP address and a fully qualified domain name (see spec. 6:6-7); the at least one IBSP server of this embodiment (claim 16) can be selected from the group consisting of a single IBSP server and a plurality of load-balancing IBSP servers (see spec. 5:16-19); and the at least one broadcast server of this embodiment (claim 17) can comprise a plurality of broadcast servers (see spec. 8:10).

VI. ISSUES

The issues on Appeal are:

Are claims 1-3, 5-6, 8-17 (improperly listed as "1-3, 5-6, 8 and 13" in the Final Office Action) unpatentable over U.S. Patent No. 6,236,991 to Frauenhofer et al. in view of U.S. Patent No. 6,324,577 to Hirai et al. as being obvious? An implicit issue with respect to claims 11-12 is further whether it is an obvious design choice to employ a plurality of IBSP servers or whether it is an obvious design choice to employ load-balancing IBSP servers?

Are claims 4 and 7 unpatentable over U.S. Patent No. 6,236,991 to Frauenhofer et al. in view of U.S. Patent No. 6,324,577 to Hirai et al., and further in view of U.S. Patent No. 5,696,898 to Baker et al. as being obvious?

VII. GROUPING OF CLAIMS

Appealed claims 1-17 stand or fall individually based upon their individual claim limitations.

VIII. ARGUMENTS

Claim Rejections - 35 USC §103

Claims 1-3, 5-6 and 8-17 were rejected as being obvious over U.S. Patent No. 6,236,991 to Frauenhofer et al. in view of U.S. Patent No. 6,324,577 to Hirai et al.

To establish a *prima facie* case of obviousness, three basic criteria must be met (See M.P.E.P. Section 2143). First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988); *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992).

Second, there must be a reasonable expectation of success. This requirement is primarily concerned with less predictable arts, such as the chemical arts.

Finally, the prior art must teach or suggest each and every limitation of the claimed invention, as the invention must be considered as a whole. *In re Hirao*, 535 F.2d 67, 190 U.S.P.Q. 15 (C.C.P.A. 1976).

The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, not in Appellant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

In the present case, at least the first and third of these criteria have not been met in the Final Office Action.

No Motivation to Combine

First, there is no suggestion or motivation, either in the references or in the knowledge generally available to one of

ordinary skill in the art, to modify the information collection and access system or method of Frauenhofer et al. with the network management system of Hirai et al. "to collect network addresses of the devices along with categorized content data in order to efficiently group information into different subject matters for easy retrieval [sic] data associated with categorized network addresses of appropriate sources" so as to render the presently claimed invention obvious.

As per MPEP 2141.02, a prior art reference must be considered as a whole, *including portions that would lead away from the invention. W. L. Gore and Associates, Inc. v. Garlock, Inc.*, 220 USPQ 303 (Fed Cir. 1983).

In the present case, Frauenhofer et al., as a whole, subscribes to the prior art method of centrally collecting content. Although the system and method of Frauenhofer et al. has a similar goal to the presently claimed invention: to provide end users with a subset of information distributed across a computer network, it acts upon centrally collected information. Indeed, in regard to providing desired content from networked content providers, Frauenhofer et al. recognizes that "One difficulty in providing the information is that the information is being created in many different places." However, Frauenhofer et al. subscribes to a model of content delivery based on *centralized content aggregation and centralized indexing/categorization* such

that "Another aspect of the problem is the actual matching process, comprising matching *the collected and categorized content* with an individual user's interests."

The deficiencies of a search model using centralized content aggregation and categorization were discussed in Applicant's application at page 1, line 13 to page 2, line 14:

Internet searching is now the subject of much activity as well as research. Search engines for both general and specific purposes abound. For example, search engines from such websites as Yahoo.com, Excite.com, Lycos.com, Northernlight.com, all attempt to build an index of the world wide web by accumulating website information in a centralized database on a centralized computer system. Thus, any of these systems involves literally indexing tens of millions of pages of information in order to allow a search against that information be accomplished. Thus, when a user desires to find specific information, the selected search engine must search its centralized index database. Further, the centralized database must continue to update its database of web pages or other computerized information in order to be current and accurate in the searching that is performed. Obviously this inefficiency results in a difficult and computationally expensive task.

Because of the structure of the centralized indexed database, search engines are relatively static and do not receive instantaneous updates of information on individual websites as those websites change. In addition, as new websites become active on the Internet or as websites become inactive, search engines do not necessarily pick up this fact leading to the reporting of results for websites that may no longer be present on the web and missing the results from new websites.

Search engines also will never be able to contain all information from all websites. This necessarily leads to searches which are not complete and result in missed websites and information. Finally, certain search engines can be manipulated to deliver preferred websites. Thus, an individual user searching the web may not receive the best websites but will receive websites which the particular search engine prefers."

Figures 1-2 and col. 3, lines 20-30 of Frauenhofer et al. illustrate the centralized nature of that system, in which all content, even from internal sources 15, is sent to system server 10 for categorization into channels before being delivered to the user 16.

The presently claimed invention, considered as a whole, differs from this centralized content aggregation and centralized categorization model in multiple ways:

- Content remains at the source (i.e., on information servers or web servers) and is not aggregated;
- Categorization is of information servers' general contents, not any specific content (i.e., there is no categorization of specific content, either centralized or decentralized);
- Categorization (of information servers / web servers) is not centralized, but rather is distributed since information servers / web servers perform self-categorization;
- Categorization of queries is not centralized, but rather is distributed since client software/users perform categorization;
- Searching (identification of material to be delivered) is not centralized since each information server searches

themselves for responsive content;

- Searching is in "real-time" (i.e. instantaneous) since it is performed by the sources of the content; and
- Responses are not filtered since they are sent to the user from the source of the content.

Therefore, as a whole, Frauenhofer et al. teaches away from the presently claimed invention through its teaching that content is best searched and delivered after being collected and categorized at a central location, such that to modify Frauenhofer et al. to eliminate these features would destroy a primary purpose of the Frauenhofer et al. invention.

Additionally, since the content is centrally collected, either passively or via a crawler (see column 3, lines 25-30 of Frauenhofer et al.), and then categorized in Frauenhofer et al., it has no need to collect any categorization information or network addresses and therefore no need to look to or be combined with the network management system of Hirai et al.

All Claim Limitations Not Shown

The obviousness rejection is additionally improper since the prior art to Frauenhofer et al. and Hirai et al. fails to teach or suggest each and every limitation of the claimed invention.

With regard to claim 1, Frauenhofer et al. and Hirai et al. fail to disclose at least the following claim elements:

"a plurality of information servers connected to a network and categorizing general content stored on themselves;" this is not disclosed since the content sources of Frauenhofer et al. do not perform any self-categorization of general contents and Hirai et al. is completely silent on this subject;

"collecting and storing the categorization and network addresses of the information servers on at least one IBSP server;" this limitation is not disclosed since the content sources of Frauenhofer et al. have no categorization information to collect or store, Frauenhofer et al. has no IBSP servers, and Hirai et al. is completely silent on categorization information;

"transmitting the categorization and network addresses of the plurality of information servers from an IBSP server to broadcast server nodes over the network;" this limitation is not disclosed since the content sources of Frauenhofer et al. have no categorization to collect or store, Frauenhofer et al. has no IBSP servers or broadcast servers - if the system server 10 is the IBSP server and the customer intranet server 14 is the broadcast server, then they still don't have any categorization transmitted between them and it is unclear how they perform the other claimed functions of these servers, and Hirai et al. is completely silent on categorization information;

"accepting a query on a user node connected to the network;" this limitation is not disclosed since users in Frauenhofer et al. only register profiles (and one of skill in the art would

recognize that a query is not the same as a profile), and Hirai et al. is completely silent on this limitation;

"transmitting the query from the user node directly to a broadcast server over the network;" this limitation is not disclosed since Frauenhofer et al. has no queries or broadcast server and Hirai et al. is completely silent on this limitation;

"the broadcast server receiving and transmitting the user node query to the plurality of information servers;" this limitation is not disclosed since Frauenhofer et al. does not disclose sending user profiles to sources - note that the system server cannot be considered "a plurality of information servers" as suggested during the interview under "broadest reasonable interpretation" since this interpretation of the claim is not consistent the specification (as required by MPEP 2111) in which the present invention is *clearly distinguished* from the prior art systems that use centralized aggregation of content - and Hirai et al. is completely silent on this limitation;

"the information servers instantaneously searching themselves for specific content responsive to the user node query;" this limitation is not disclosed since the sources of Frauenhofer et al. do not perform any searching or receive any queries from users and Hirai et al. is completely silent on this limitation; and

"each of the plurality of information servers transmitting a response to the user node query to the user node when responsive

content is found;" this limitation is not disclosed since the sources of Frauenhofer et al. have no responses to transmit and Hirai et al. is completely silent on this limitation.

With regard to claims 2-3 (as well as 4), these claims are allowable over Frauenhofer et al. and Hirai et al. for at least those reasons cited with respect to independent claim 1, from which they depend.

With regard to claim 5, Frauenhofer et al. and Hirai et al. fail to disclose at least the following claim elements:

"a plurality of information servers connected over a network, each comprising instructions for categorizing general content resident on the information servers to form a categorization and for transmitting their network address and categorization to an IBSP server;" this limitation is not disclosed since the content sources of Frauenhofer et al. do not perform any self-categorization of general contents and Hirai et al. fails to remedy this problem with Frauenhofer et al.;

"the IBSP server connected to the network and comprising instructions for receiving the network addresses and categorization from the information servers and for transmitting same to a plurality of user nodes connected to the IBSP server over the network;" this limitation is not disclosed since the content sources of Frauenhofer et al. have no categorization to transmit, Frauenhofer et al. has no IBSP servers, and Hirai et

al. fails to remedy either of these problems with Frauenhofer et al.;

"the plurality of user nodes each comprising instructions for receiving the network addresses and categorization of the information servers from the IBSP server and for accepting and categorizing user queries;" this limitation is not disclosed since the content sources of Frauenhofer et al. have no categorization information to receive, Frauenhofer et al. has no IBSP servers, and Hirai et al. fails to remedy these problems with Frauenhofer et al.;

"the plurality of user nodes further comprising instructions for transmitting the user nodes' network address and the categorized queries to the plurality of information servers with the same categorization as the query;" this limitation is not disclosed since users in Frauenhofer et al. only register profiles with a centralized server, not categorized queries, and Hirai et al. fails to remedy this problem with Frauenhofer et al.; and

"the information servers further comprising instructions for instantaneously searching themselves for specific content responsive to the categorized queries from the user nodes and returning a response to the categorized queries to the user nodes transmitting the categorized queries when content responsive to the categorized queries is found;" this limitation is not disclosed since the sources of Frauenhofer et al. do not perform

any searching, do not receive any queries from users, and have no responses to transmit, and Hirai et al. fails to remedy this problem with Frauenhofer et al.

With regard to claim 6, Frauenhofer et al. and Hirai et al. fail to disclose at least the following claim elements:

"a plurality of information servers connected over a network, each comprising instructions for categorizing general content resident on the information servers to form a categorization and for transmitting their network address and categorization to an IBSP server;" this limitation is not disclosed since the content sources of Frauenhofer et al. do not perform any self-categorization of general contents, Frauenhofer et al. has no IBSP servers, and Hirai et al. fails to remedy these problems with Frauenhofer et al.;

"the IBSP server connected to the network and comprising instructions for receiving the network addresses and categorization from the information servers and for transmitting same to a plurality of broadcast server nodes;" this limitation is not disclosed since the content sources of Frauenhofer et al. have no categorization to receive, Frauenhofer et al. has no IBSP servers, and Hirai et al. fails to remedy these problems with Frauenhofer et al.;

"a plurality of user nodes each comprising instructions for accepting and categorizing user queries" and "further comprising

instructions for transmitting the user node's network address and the categorized queries to a broadcast server over the network;" this limitation is not disclosed since users in Frauenhofer et al. only register profiles with a centralized server where content is aggregated and Hirai et al. fails to remedy this problem with Frauenhofer et al.;

"a plurality of broadcast servers each comprising instructions for receiving the network addresses and the categorization of the information servers from the IBSP server" and "further comprising instructions for receiving the user nodes' network addresses and the categorized queries from the plurality of user nodes and for transmitting same to the plurality of information servers;" this limitation is not disclosed since Frauenhofer et al. has no reason to have broadcast servers or an IBSP servers due to its centralized structure and does not disclose sending user profiles to sources, and Hirai et al. fails to remedy these problems with Frauenhofer et al.; and

"the information servers further comprising instructions for instantaneously searching themselves for specific content responsive to the categorized queries from the user nodes and returning a response to the categorized queries to the user nodes transmitting the categorized queries when content responsive to the categorized queries is found;" this limitation is not disclosed since the sources of Frauenhofer et al. do not perform

any searching, do not receive any queries from users, and have no responses to transmit, and Hirai et al. fails to remedy any of these problems with Frauenhofer et al.

Although the Examiner discussed during the telephonic interview of December 18, 2002 that he believes single servers of Frauenhofer et al. can perform multiple functions and that multiple servers in Frauenhofer et al. can perform single functions, Appellant submits that this position is improper as verbally applied by the Examiner during the interview and that this position fails to consider both i) the prior art as a whole, and ii) the claimed limitations. Indeed, it is improper when the Examiner considers the same element to be mutually exclusive elements within the same claim, *including* elements that are required by the claim to transmit information to each other over a network (thereby necessarily being mutually exclusive).

Appellant requested that any further interpretations of the prior art by the Examiner maintain element-to-element consistency throughout the interpretation, but no such element-to-element interpretation was provided in the Final Rejection of July 2, 2003.

Appellant further wishes to point out that when interpreting claims, MPEP 2111 states that claims must be "given the broadest reasonable interpretation **consistent with the specification.**" In the present case, the specification clearly discloses the

decentralized nature of the searching function such that to consider "a plurality of information servers" to include a centralized set of servers with a common database of aggregated content and which act in concert with each other is clearly an interpretation **inconsistent with the specification.**

For example, from page 1, line 13 to page 2, line 14 of the specification, the disadvantages of centralized search databases was discussed by Appellant - they are inefficient, they are computationally expensive, they are too static to be currently accurate, and they can miss pages. In the objects of the invention on pages 4 and 5 of the specification, the Appellant described efficiency and accuracy as objects of the invention and specifically stated "It is yet another objective of the present invention to conduct searching without the need to update any centralized database of information."

With respect to claims 8-17, the Final Office Action rejected claims 8 and 13 for the same reasons as claim 1.

With respect to claim 8, Appellant submits both that the rejection of claim 8 is improper for the same reasons as applied to claim 1 with respect to motivation to combine, and that Frauenhofer et al. and Hirai et al. fail to teach or fairly suggest the combination in a system for internet broadcast searching, the following combination, and, in particular, at least all of the claim limitations listed in bold: a network that

provides internet protocol (IP) communication; a plurality of client computers connected to said network; a plurality of website computers connected to said network; at least one internet broadcast search paradigm (IBSP) server connected to said network; and at least one broadcast server connected to said network; wherein said plurality of client computers include client software instructions to accept and categorize a search query from a user, to transmit said search query, a search query category and client computer IP address directly to said at least one broadcast server, and to receive search query results directly from responding website computers comprised of an IP address of the responding website computer and information responsive to said query from said responding website computer; wherein said plurality of website computers include website software instructions to periodically perform categorization of said website's general content, to periodically send their IP address and categorization to said at least one IBSP server, to search said website's content as it currently exists when a search query is received, and to respond directly to a search query by sending said website's IP address and a response to said search query directly to the client computer IP address; wherein said at least one IBSP server includes software instructions to periodically receive IP address and a categorization from said

plurality of website computers, to periodically create a data file of IP address and categorization for all of said plurality of website computers, and to periodically transmit said data file to each of said at least one broadcast server; and wherein said at least one broadcast server includes software instructions to receive a data file from said at least one IBSP server, to receive search queries with associated search query categories and client computer IP addresses directly from said plurality of client computers, to match said search query categories with website categorization in said data file, and to transmit search queries and associated client IP addresses directly to IP addresses of any website computers that have a categorization matching the search query categories.

With respect to claim 9, Appellant submits that claim 9 is allowable for at least the same reasons as applied to claims 5-8, above.

With respect to claim 10, Appellant submits that claim 10 is allowable for at least the same reasons as applied to claims 5-8, above.

With respect to claims 11-12, Appellant submits that claims 11-12 are allowable for at least the same reasons as applied to claims 5-8, above. Further, since the combination of Frauenhofer et al. and Hirai et al. fails to teach or fairly suggest the use

of an IBSP server as applied to claims 5-8 above, the use of either a single IBSP server or a plurality of load-balancing IBSP servers of claim 11 is also non-obvious. Indeed, as the Final Office Action has failed to identify what elements of the prior art are considered to be the claimed IBSP server, one cannot even evaluate whether plural or load-balanced servers would be appropriate or desirable. Likewise, since the combination of Frauenhofer et al. and Hirai et al. fails to teach or fairly suggest the use of a broadcast server as applied to claims 5-8 above, the plurality of broadcast servers of claim 12 is also non-obvious.

With respect to claim 13, Appellant submits both that the rejection of claim 13 is improper for the same reasons as applied to claim 1 with respect to motivation to combine, and that Frauenhofer et al. and Hirai et al. fail to teach or fairly suggest the claimed combination for a method for internet broadcast searching. Indeed the prior art fails to disclose any *of the "providing" limitations of the claimed combination, as listed in bold: providing client software to a plurality of client computers connected to a network that provides internet protocol (IP) communication so as to allow said client computers to accept and categorize a search query from a user, to transmit said search query, a search query category and client computer IP address directly to at least one broadcast server, and to receive*

search query results directly from responding website computers comprised of an IP address of the responding website computer and information responsive to said query from said responding website computer; *providing* website software to a plurality of said website computers connected to said network so as to allow said website computers to periodically perform categorization of said website's general content, to periodically send their IP address and categorization to at least one IBSP server, to search said website's content as it currently exists when a search query is received, and to respond directly to a search query by sending said website's IP address and a response to said search query directly to the client computer IP address; *providing* IBSP software to said at least one IBSP server so as to allow said at least one IBSP server to periodically receive an IP address and a categorization from said plurality of website computers, to periodically create a data file of IP address and categorization for all of said plurality of website computers, and to periodically transmit said data file to each of said at least one broadcast server; and *providing* broadcast server software to at least one broadcast server so as to allow said at least one broadcast server to receive a data file from said at least one IBSP server, to receive search queries with associated search query categories and client computer IP addresses directly from

said plurality of client computers, to match said search query categories with website categorization in said data file, and to transmit search queries and associated client IP addresses directly to IP addresses of any website computers that have categorization matching the search query categories.

With respect to claim 14, Appellant submits that claim 14 is allowable for at least the same reasons as applied to claims 13, above.

With respect to claim 15, Appellant submits that claim 15 is allowable for at least the same reasons as applied to claims 5-8, above.

With respect to claims 16-17, Appellant submits that claims 11-12 are allowable for at least the same reasons as applied to claims 13, above. Further, since the combination of Frauenhofer et al. and Hirai et al. fails to teach for fairly suggest the provision of an IBSP server as applied to claims 13 above, the provision of either a single IBSP server or a plurality of load-balancing IBSP servers of claim 16 is also non-obvious. Indeed, as the Final Office Action has failed to identify what elements of the prior art are considered to be the claimed IBSP server, one cannot even evaluate whether plural or load-balanced servers would be appropriate or desirable. Likewise, since the combination of Frauenhofer et al. and Hirai et al. fails to teach for fairly suggest the provision of a broadcast server as applied

to claims 13 above, the plurality of broadcast servers of claim 17 is also non-obvious.

For the above-cited reasons, Appellant submits that any possible combination of Frauenhofer et al. and Hirai et al. fails to teach or fairly suggest the limitations of claims 1-3, 5-6, and 8-17 and respectfully requests reconsideration and allowance of the claims.

Claims 4 and 7 were rejected as being obvious over Frauenhofer et al. in view of Hirai et al. and further in view of Baker et al.

Implicit in the Final Office Action rejection of claims 4 and 7 is that Frauenhofer et al. and Hirai et al. disclose everything except a firewall. However, as Appellant has discussed above, there is no proper reason to combine Frauenhofer et al. and Hirai et al. and the combination fails to disclose or suggest all of the claim limitations. Baker et al. fails to remedy any of the previously submitted deficiencies in the combination of Frauenhofer et al. and Hirai et al., such that the combination of Frauenhofer et al. and Hirai et al. and Baker et al. also fails to establish a *prima facie* case of obviousness.

For the above-cited reasons, Appellant submits that any possible combination of Frauenhofer et al., Hirai et al., and Baker et al. fails to teach or fairly suggest the limitations of claims 4 and 7 and respectfully requests reconsideration and allowance of the claims.

Further Considerations

Appellant submits that all of the claims are drawn to instantaneous searching of content: "information servers ... instantaneously searching themselves for specific content" responsive to user queries in claims 1-7 and a limitation "to search said website's content as it currently exists when a search query is received" in claims 8-17. The system of Frauenhofer et al. cannot possibly provide this claim limitation. The content in Frauenhofer et al. is first collected in a central location. As disclosed at column 3, lines 20-30 of Frauenhofer et al.:

Continual or periodic categorization of external electronic content is the task of the system components which can be preferably located at the System Server 10. The System Server receives input from the content providers 12, as well as possibly from the internal sources 15 via the Customer Intranet Server 14. Receipt of input from both external and internal sources can be a passive process, whereby the documents are continuously or periodically supplied to the System Server, or an active process, whereby system crawler components seek out the documents via word searching, site mapping, etc.

The content is then categorized; see Column 2, lines 50-52:

At the System Server, the electronic content is categorized, with duplicate copies eliminated, and is stored in so-called "channels" of information.

Even when content is delivered continuously to the System Server, the delivery takes time and the categorization by the System Server takes time, such that users of Frauenhofer et al. system will never have availability to content created in the

preceding instant. However, the present invention eliminates the time delay associated with the need to categorize content, instead categorizing sources (information servers/websites). It also eliminates the time delay associated with central aggregation of content, instead querying the possible sources to have them search their present content. In this manner, "instant" searching is enabled and stale results are eliminated by the present invention.

IX. CONCLUSION

For the above reasons, Appellants respectfully submit that the Final Office Action has failed to make out a *prima facie* case of obviousness with regard to claims 1-17, and asks that the obviousness rejections be reversed.

The present Brief on Appeal is being filed in triplicate.

Appellants hereby petition for any extension of time that may be required to maintain the pendency of this case, and any required fee for such extension is to be charged to Deposit Account No. 18-1579.

Respectfully submitted,



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APPENDIX

Claim 1. (Previously Amended) A method of instantaneously searching a network of interconnected computers and servers comprising:

- a plurality of information servers connected to a network and categorizing general content stored on themselves;

- collecting and storing the categorization and network addresses of the information servers on at least one IBSP server;

- transmitting the categorization and network addresses of the plurality of information servers from an IBSP server to broadcast server nodes over the network;

- accepting a query on a user node connected to the network;

- transmitting the query from the user node directly to a broadcast server over the network;

- the broadcast server receiving and transmitting the user node query to the plurality of information servers;

- the information servers instantaneously searching themselves for specific content responsive to the user node query; and

- each of the plurality of information servers transmitting a response to the user node query to the user node when responsive content is found.

Claim 2. (Previously Amended) The method of instantaneously searching a network of interconnected computers and servers of claim 1 further comprising:

- the user node categorizing each user node query prior to transmitting the user node query; and

- the broadcast server transmitting the user node query to a plurality of information servers that have appropriate categorization.

Claim 3. (Previously Amended) The method of instantaneously searching a network of interconnected computers and servers of claim 1, wherein the categorization and network addresses comprise information selected from the group consisting of website language, general contents, domain name, and IP address.

Claim 4. (Previously Amended) The method of instantaneously searching a network of interconnected computers and servers of claim 1, further comprising
connecting the user node to the network via a firewall.

Claim 5. (Previously Amended) A system for instantaneously searching a network of interconnected computers and servers comprising:

a plurality of information servers connected over a network, each comprising instructions for categorizing general content resident on the information servers to form a categorization and for transmitting their network address and categorization to an IBSP server;

the IBSP server connected to the network and comprising instructions for receiving the network addresses and categorization from the information servers and for transmitting same to a plurality of user nodes connected to the IBSP server over the network;

the plurality of user nodes each comprising instructions for receiving the network addresses and categorization of the information servers from the IBSP server and for accepting and categorizing user queries;

the plurality of user nodes further comprising instructions for transmitting the user nodes' network address and the categorized queries to the plurality of information servers with

the same categorization as the query; and

the information servers further comprising instructions for instantaneously searching themselves for specific content responsive to the categorized queries from the user nodes and returning a response to the categorized queries to the user nodes transmitting the categorized queries when content responsive to the categorized queries is found.

Claim 6. (Previously Amended) A system for instantaneously searching a network of interconnected computers and servers comprising:

a plurality of information servers connected over a network, each comprising instructions for categorizing general content resident on the information servers to form a categorization and for transmitting their network address and categorization to an IBSP server;

the IBSP server connected to the network and comprising instructions for receiving the network addresses and categorization from the information servers and for transmitting same to a plurality of broadcast server nodes;

a plurality of user nodes each comprising instructions for accepting and categorizing user queries;

the plurality of user nodes further comprising instructions for transmitting the user node's network address and the categorized queries to a broadcast server over the network;

a plurality of broadcast servers each comprising instructions for receiving the network addresses and the categorization of the information servers from the IBSP server;

the broadcast server further comprising instructions for receiving the user nodes' network addresses and the categorized queries from the plurality of user nodes and for transmitting same to the plurality of information servers; and

the information servers further comprising instructions for instantaneously searching themselves for specific content responsive to the categorized queries from the user nodes and returning a response to the categorized queries to the user nodes transmitting the categorized queries when content responsive to the categorized queries is found.

Claim 7. (Previously Amended) A system for instantaneously searching a network of interconnected computers and servers comprising:

a plurality of information servers connected over a network, each comprising instructions for categorizing general content resident on the information servers to form a categorization and for transmitting their network address and categorization to an IBSP server;

the IBSP server, connected to the network, comprising instructions for receiving the network addresses and categorization from the information servers and for transmitting same to a plurality of firewall server nodes;

a plurality of user nodes comprising instructions for accepting and categorizing user queries;

the plurality of user nodes further comprising instructions for transmitting the user node's network address and the categorized queries to a firewall server over the network;

a plurality of firewall servers each comprising instructions for receiving the network addresses and the categorization of the information servers from the IBSP server;

the firewall servers further comprising instructions for receiving the user node's network addresses and categorized the queries from a plurality of user nodes;

the firewall servers further comprising instructions for transmitting the firewall node's network address, the user node

addresses, and the categorized queries to the plurality of information servers; and

the information servers further comprising instructions for searching themselves for specific content responsive to the categorized queries from the user nodes and returning a response to the categorized queries to the firewall server for forwarding to the user nodes transmitting the categorized queries when content responsive to the categorized queries is found.

Claim 8. (Previously presented) A system for internet broadcast searching, comprising:

a network that provides internet protocol (IP) communication;

a plurality of client computers connected to said network;

a plurality of website computers connected to said network;

at least one internet broadcast search paradigm (IBSP) server connected to said network; and

at least one broadcast server connected to said network;

wherein said plurality of client computers include client software instructions to accept and categorize a search query from a user, to transmit said search query, a search query category and client computer IP address directly to said at least one broadcast server, and to receive search query results directly from responding website computers comprised of an IP address of the responding website computer and information responsive to said query from said responding website computer;

wherein said plurality of website computers include website software instructions to periodically perform categorization of said website's general content, to periodically send their IP address and categorization to said at least one IBSP server, to search said website's content as it currently exists when a search query is received, and to respond directly to a search

query by sending said website's IP address and a response to said search query directly to the client computer IP address;

wherein said at least one IBSP server includes software instructions to periodically receive IP address and a categorization from said plurality of website computers, to periodically create a data file of IP address and categorization for all of said plurality of website computers, and to periodically transmit said data file to each of said at least one broadcast server; and

wherein said at least one broadcast server includes software instructions to receive a data file from said at least one IBSP server, to receive search queries with associated search query categories and client computer IP addresses directly from said plurality of client computers, to match said search query categories with website categorization in said data file, and to transmit search queries and associated client IP addresses directly to IP addresses of any website computers that have a categorization matching the search query categories.

Claim 9. (Previously presented) The system as in one of claims 5-8, wherein said network is selected from the group consisting of an intranet, an internet, the Internet, and combinations thereof.

Claim 10. (Previously presented) The system as in one of claims 5-8, wherein said IP address is selected from the group consisting of a numerical IP address, a fully qualified domain name, and both a numerical IP address and a fully qualified domain name.

Claim 11. (Previously presented) The system as in one of claims 5-8, wherein said at least one IBSP server is selected from the

group consisting of a single IBSP server and a plurality of load-balancing IBSP servers.

Claim 12. (Previously presented) The system as in one of claims 5-8, wherein said at least one broadcast server comprises a plurality of broadcast servers.

Claim 13. (Previously presented) A method for internet broadcast searching, comprising:

providing client software to a plurality of client computers connected to a network that provides internet protocol (IP) communication so as to allow said client computers to accept and categorize a search query from a user, to transmit said search query, a search query category and client computer IP address directly to at least one broadcast server, and to receive search query results directly from responding website computers comprised of an IP address of the responding website computer and information responsive to said query from said responding website computer;

providing website software to a plurality of said website computers connected to said network so as to allow said website computers to periodically perform categorization of said website's general content, to periodically send their IP address and categorization to at least one IBSP server, to search said website's content as it currently exists when a search query is received, and to respond directly to a search query by sending said website's IP address and a response to said search query directly to the client computer IP address;

providing IBSP software to said at least one IBSP server so as to allow said at least one IBSP server to periodically receive an IP address and a categorization from said plurality of website computers, to periodically create a data file of IP address and

categorization for all of said plurality of website computers, and to periodically transmit said data file to each of said at least one broadcast server; and

providing broadcast server software to at least one broadcast server so as to allow said at least one broadcast server to receive a data file from said at least one IBSP server, to receive search queries with associated search query categories and client computer IP addresses directly from said plurality of client computers, to match said search query categories with website categorization in said data file, and to transmit search queries and associated client IP addresses directly to IP addresses of any website computers that have categorization matching the search query categories.

Claim 14. (Previously presented) The method of claim 13, further comprising selecting said network from the group consisting of an intranet, an internet, the Internet, and combinations thereof.

Claim 15. (Previously presented) The method of claim 13, further comprising selecting said IP address from the group consisting of a numerical IP address, a fully qualified domain name, and both a numerical IP address and a fully qualified domain name.

Claim 16. (Previously presented) The method of claim 13, further comprising selecting said at least one IBSP server from the group consisting of a single IBSP server and a plurality of load-balancing IBSP servers.

Claim 17. (Previously presented) The method of claim 13, wherein said at least one broadcast server comprises a plurality of broadcast servers.